AMENDMENTS TO THE CLAIMS

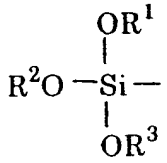
1 to 13. (Canceled)

14. (New) A biosensor chip comprising two groups of polymers expressed by the following general formula (I) which are linked onto the sensor chip surface via the A-moiety present at one end of said polymers:

general formula (I)

$A\text{-}(CH_2)_p\text{-}L_1\text{-}(CH_2CH_2O)_n\text{-}L_2\text{-}X$

in which

A stands for HS- or  group,

where R^1, R^2 and R^3 each independently stands for C_1-C_6 alkyl,

L_1 stands for a first linker or valence bond,

L_2 stands for a second linker or valence bond,

X stands for hydrogen, a functional group, protected functional group or ligand,

p is an integer of 2 - 12, and

n is an integer of, on the average, 10 - 10,000,

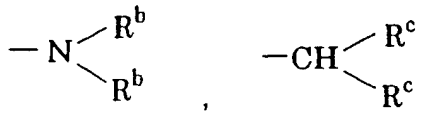
in which one group of said polymers have an integer, n, as an average value, of 50-10,000 and the other group of said polymers have an integer less than that by at least 10.

15. (New) The biosensor chip according to Claim 14, in which A in general formula I is HS group;

L_1 is —COO— (which binds to ethylene oxide unit via the oxygen atom), -O- or -S-;

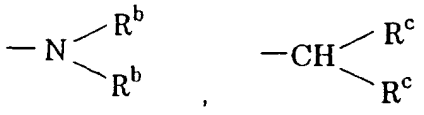
L_2 is a valence bond or $-(CH_2)_q-$ (wherein q is an integer of 2 - 6); and

X is hydrogen atom,



or -COOH (wherein R^b independently stands for hydrogen or C_1-C_6 alkyl, and R^c independently stands for a C_1-C_6 alkyloxy, or two R^c groups together form oxy or an optionally C_1-C_6 alkyl-substituted 1,2-dioxyethylene group).

16. (New) The biosensor chip according to Claim 14, in which, referring to the general formula (I), A is $(CH_3O)_3$ Si- group; L^1 is -O-, -NHCOO- (this group binds to ethylene oxide unit via the oxygen atom) or -N(R^d)-(wherein R^d stands for a C_1-C_6 alkyl); L_2 is a valence bond, -$(CH_2)_\gamma$ - or -CO$(CH_2)_\gamma$ - (wherein γ is an integer of 2 - 6); and X is hydrogen atom,



or -COOH (wherein R^b independently stands for hydrogen or C_1-C_6 alkyloxy, and R^c independently stands for a C_1-C_6 alkyloxy, or two R^c groups together form oxy or an optionally C_1-C_6 alkyl-substituted 1,2-dioxyethylene group).

17. (New) The biosensor chip according to Claim 14, in which A in general formula (I) is HS group, and the sensor chip surface is made of a material selected from the group consisting of gold, silver, copper and aluminum.

18. (New) The biosensor chip according to Claim 14, in which A in general formula (I) is $(CH_3O)_3$ Si- group, and the sensor chip surface is made of a material selected from the

group consisting of glass, semi-conductor, ceramic, metal oxide and alloy oxide.

19. (New) The biosensor chip according to Claim 14, in which said biosensor chip comprises two groups of polymers of the general formula (I) which are linked in combination, one group of said polymers have an integer, n, of 50 – 1000 as an average value and the other group of said polymers have an integer, n, of 10 - 60 as an average value.

20. (New) A method for preparing a biosensor chip comprising two groups of polymers expressed by the following general formula (I) which are linked onto the sensor chip surface via the A-moiety present at one end of said polymers:

general formula (I)

$A\text{-}(CH_2)_p\text{-}L_1\text{-}(CH_2CH_2O)_n\text{-}L_2\text{-}X$ (I)

in which

A stands for HS- group,

L_1 stands for a first linker or valence bond,

L_2 stands for a second linker or valence bond,

X stands for hydrogen, a functional group, protected functional group or ligand,

p is an integer of 2 - 12, and

n is an integer of, on the average, 10 - 10,000,

in which one group of said polymers have an integer, n, as an average value, of 50-10,000

and the other group of said polymers have an integer less than that by at least 10, which comprises,

(A) a step of contacting an aqueous solution of said one group of polymers expressed by a general formula (Ia):

$HS\text{-}(CH_2)p\text{-}L_1\text{-}(CH_2CH_2O)_n\text{-}L_2\text{-}X$ (Ia)

in which L_1, L_2, X, p and n have the same significations to those as defined as to the general formula (I),

with the sensor chip surface of a metal selected from the group consisting of gold, silver, copper and aluminum, under the conditions sufficient to link a prescribed amount of said

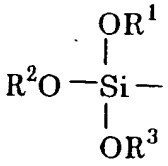
polymer to said metallic surface, and thereafter washing away the unlinked polymer.;
(B) a step of subsequently contacting an aqueous solution of said other group of polymers of general formula (Ia) which have an integer less than that said one group of polymers in step (A) by at least 10, with the metallic surface which has undergone the above step A, under the conditions sufficient to link said polymer to said surface, and thereafter washing away the unlinked polymer; and
(C) repeating a step similar to the above step (B) with so obtained surface plural times.

21. (New) A method for treating the surface of a material selected from the group consisting of glass, semi-conductor, ceramic, metal oxide and alloy oxide, where two groups of polymers expressed by the following general formula (I) are linked onto the surface via the A-moiety present at one end of said polymers:

general formula (I)

$A\text{-}(CH_2)_p\text{-}L_1\text{-}(CH_2CH_2O)_n\text{-}L_2\text{-}X$

in which

A stands for  group,

where R^1, R^2 and R^3 each independently stands for C_1-C_6 alkyl,

L_1 stands for a first linker or valence bond,

L_2 stands for a second linker or valence bond,

X stands for hydrogen, a functional group, protected functional group or ligand,

p is an integer of 2 - 12, and

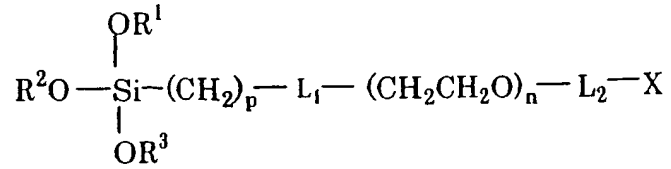
n is an integer of, on the average, 10 - 10,000,

in which one group of said polymers have an integer, n, as an average value, of 50-10,000

and the other group of said polymers have an integer less than that by at least 10, which comprises

(A) a step of contacting an organic solvent solution of said one group of polymers

expressed by a general formula (Ib):



$$R^2O-\underset{\displaystyle OR^3}{\overset{\displaystyle OR^1}{\overset{|}{\underset{|}{Si}}}}-(CH_2)_p-L_1-(CH_2CH_2O)_n-L_2-X \qquad (Ib)$$

in which R^1, R^2, R^3, L_1, L_2, X, p and n have the same significations to those as defined as to the general formula (I),

with said material under the conditions sufficient to adhere or link a prescribed amount of said polymer to the surface of said material, distilling the solvent off, and washing away the unlinked polymer;

(B) a step of subsequently contacting an organic solvent solution of said other group of polymers of the general formula (Ib) which have an integer less than that of the polymer in step (A) by at least 10, with the surface which has undergone the above step (A) under the conditions sufficient to adhere or link said polymer to said surface, then distilling the solvent off and washing away the unlinked polymer; and

(C) repeating a step similar to above step (B) with so obtained surface plural times.

22. (New) The biosensor chip according to Claim 14, in which one of said polymers has an integer, n, as an average value, of 50-10,000 and the other has an integer less than that by at least 20.

23. (New) The biosensor chip according to Claim 14, in which one of said polymers has an integer, n, as an average value, of 50-10,000 and the other has an integer less than that by at least 50.

24. (New) The biosensor chip according to Claim 14 the number of the polymer chain per 1 nm^2 of said sensor chip surface is at least 0.1, as converted from the data obtained by thermogravimetric analysis of the sensor chip surface.